

Patent
H2S001

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:

Sterchi, et al.

Serial No. TBA

Filed: Herewith

For: REGENERATIVE PUMP FOR
HYDROGEN GAS APPLICATIONS
AND METHOD OF USING THE
SAME

Group Art Unit: TBA

Examiner: TBA

Mail Stop: Patent Application
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

**PETITION TO MAKE SPECIAL DUE TO ENVIRONMENTAL QUALITY/ENERGY
CONSERVATION**

Applicants of the above-referenced application, John Patrick Sterchi and Jerry Alan Piontkowski, hereby petition to make the above-identified application special because the invention materially enhances the quality of the environment and/or materially contributes to the conservation of energy resources.

The regenerative pump and method are preferably used in a Hydrogen Delivery and Recovery Sub-System (HDRS) of a hydrogen-based fuel cell system. The regenerative pump and method recirculates unused hydrogen back to the inlet of the hydrogen fuel cell stack of the system. The regenerative pump and method, among other things, reduces the load on the hydrogen fuel cell stack, inhibits anode degradation in the hydrogen fuel cell stack, improves the efficiency of the hydrogen fuel cell stack, and promotes the use of hydrogen fuel cells. An increase in hydrogen fuel cell use enhances the quality of the environment and/or materially contributes to the conservation of energy sources because hydrogen fuel cells are used to power electric motors, replacing internal combustion engines, which run on gasoline and diesel fuel. This reduces the amount of oil consumed, materially contributing to the

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conservation of energy resources, and reduces harmful exhaust emissions to the atmosphere. Lower harmful exhaust emissions improves air quality, enhancing the quality of the environment.

Applicants earnestly requests the granting of this petition to expedite the prosecution of this application.

Respectfully submitted,

Dated: August 1, 2003

By: 

Stephen C. Beuxle
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